|  |  |
| --- | --- |
| **Command** | **Description** |
| ? | Show Help for Current mode or Command options |
| enable | Privileged mode |
| configure terminal | Global configuration mode (GCM) |
| do | Run commands from others modes in GCM |
| interface **fa0/0 (gi0/0)** | Setup Fast (Gigabit) Ethernet Interface |
| shutdown | Turn off interface |
| no shutdown | Turn on interface |
| ip address **<ip addr> <subn mask>** | Set port settings |
| line vty **0 4** | Setup telnet/ssh connection (0 4 – five user virtual terminals/sessions) |
| password **P@ssw0rd** | Setup password for access via telnet |
| enable secret **P@ssw0rd** | Setup password for access via ssh |
| aaa new-model | Another way to setup login/password |
| username **admin** password **P@ssw0rd** | Set login/password |
| line console **0**  login  password **P@ssw0rd** | Set password to console port |
| Setup privileges | |
| username **ServDesk** privilege **3** secret **ServDesk**  privilege exec level **3 <command>**  enable secret level **3 P@ssw0rd** | Set user and privilege level  Assign command to this level  Sep password for privileged mode for this user |
| hostname <computer name>  ip domain-name <domain name>  crypto key generate rsa  line vty 0 4  transport input ssh | Enable ssh and disable telnet |
| write memory | Save current configuration |
| reload | Reboot router |

Network requirements

* Fault tolerance
* QoS
* Scalability
* Security

Ping command use **ICMP** Protocol

|  |  |
| --- | --- |
| **VLAN** | |
| 1 | Default |
| 2 | Management |
| 3 | Servers |
| 4-100 | Reserved |
| 101 | Printers |
| 102 | IT |
| 103 | Users |

|  |  |  |
| --- | --- | --- |
| **IP-plan** | | |
| **IP-address** | **Comments** | **VLAN** |
| **10.100.0.0** | - | - |
| **10.100.0.0/24** | **Servers** | **3** |
| 10.100.0.1 | Gateway |  |
| 10.100.0.2 | DC |  |
| 10.100.0.3 | Storage (Share) |  |
| 10.100.0.4 | Exchange |  |
| 10.100.0.5 | SQL |  |
| 10.100.0.6 - 10.100.0.254 | Reserved |  |
| **10.100.1.0/24** | **Management** | **2** |
| 10.100.1.1 | Gateway |  |
| 10.100.1.2 | UA-KYI-GW01 |  |
| 10.100.1.3 | UA-KYI-CS01 |  |
| 10.100.1.4 | UA-KYI-AS01 |  |
| 10.100.1.5 | UA-KYI-AS02 |  |
| 10.100.1.6 | UA-KYI-AS03 |  |
| 10.100.1.7 | UA-DON-AS01 |  |
| 10.100.1.8 | UA-DON-AS02 |  |
| 10.100.1.9 | UA-DON-AS03 |  |
| 10.100.1.10 | UA-LVI-AS01 |  |
| 10.100.1.11 - 10.100.1.254 | Reserved |  |
| **10.100.2.0/24** | **Printers** | **101** |
| 10.100.2.1 | Gateway |  |
| 10.100.2.2 – 10.100.2.254 | Reserved |  |
| **10.100.3.0/24** | **IT** | **102** |
| 10.100.3.1 | Gateway |  |
| 10.100.3.2 – 10.100.3.254 | Reserved |  |
| **10.100.4.0/24** | **Users** | **103** |
| 10.100.4.1 | Gateway |  |
| 10.100.4.2 – 10.100.4.254 | Reserved |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Connection** | | | | |
| **Device name** | **Port** | **Connected to** | **VLAN** | |
| **Access** | **Trunk** |
| **UA-KYI-GW01** | GE0/0 | Uplink |  |  |
|  | GE0/1 | UA-KYI-CS01 |  | 2,3,101,102,103 |
|  | GE0/1.2 | UA-KYI-CS01 | 2 |  |
|  | GE0/1.3 | UA-KYI-CS01 | 3 |  |
|  | GE0/1.101 | UA-KYI-CS01 | 101 |  |
|  | GE0/1.102 | UA-KYI-CS01 | 102 |  |
|  | GE0/1.103 | UA-KYI-CS01 | 103 |  |
|  | | | | |
| **UA-KYI-CS01** | GE0/1 | UA-KYI-GW01 |  | 2,3,101,102,103 |
|  | GE0/2 | UA-KYI-AS01 |  | 2,3,101 |
|  | FE0/24 | UA-KYI-AS03 |  | 2,102,103 |
|  | FE0/23 | UA-DON-AS01 |  | 2,3,101 |
|  | FE0/22 | UA-DON-AS03 |  | 2,102,103 |
|  | FE0/21 | UA-LVI-AS01 |  | 2,101,103 |
|  |  |  |  |  |
| **UA-KYI-AS01** | GE0/1 | UA-KYI-CS01 |  | 2,3,101 |
| VLAN 3 | GE0/2 | UA-KYI-AS02 |  | 2,3,101 |
|  | FE0/1 | UAKYIDCS01 | 3 |  |
|  | FE0/2 | UAKYISHS01 | 3 |  |
|  |  |  |  |  |
| **UA-KYI-AS02** | GE0/1 | UA-KYI-AS01 |  | 2,3,101 |
|  | FE0/1 | UAKYIEXS01 | 3 |  |
|  | FE0/2 | UAKYISQL01 | 3 |  |
|  | FE0/24 – FE0/15 | UA.KYI.PRT01 (10) | 101 |  |
|  |  |  |  |  |
| **UA-KYI-AS03** | FE0/24 | UA-KYI-CS01 |  | 2,102,103 |
| VLAN 2,102,103 | FE0/23 – FE0/19 | UAKYIIT01 (05) | 102 |  |
|  | FE0/18 – FE0/1 | UAKYIUS01 (18) | 103 |  |
|  |  |  |  |  |
| **UA-DON-AS01** | FE0/24 | UA-KYI-CS01 |  | 2,3,101 |
|  | FE0/23 | UA-DON-AS02 |  | 2,3,101 |
|  | FE0/1 | UADONSHS01 | 3 |  |
|  |  |  |  |  |
| **UA-DON-AS02** | FE0/24 | UA-DON-AS01 |  | 2,3,101 |
|  | FE0/1 | UA-DONSQL01 | 3 |  |
|  | FE0/23 – FE0/20 | UA.DON.PRT01 (04) | 101 |  |
|  |  |  |  |  |
| **UA-DON-AS03** | FE0/24 | UA-KYI-CS01 |  | 2,102,103 |
|  | FE0/23 – FE0/20 | UADONIT01 (04) | 102 |  |
|  | FE0/19 – FE0/1 | UADONUS01 | 103 |  |
|  |  |  |  |  |
| **UA-LVI-AS01** | FE0/24 | UA-KYI-CS01 |  | 2,101,103 |
|  | FE0/1 | UALVIUS01 | 103 |  |
|  | FE0/23 | UA.LVI.PRT01 | 101 |  |
|  |  |  |  |  |
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